



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,953	10/24/2001	Veli-Matti Juntti	060258-0282812	6626
30671 7590 07/01/2009 DITTHAVONG MORI & STEINER, P.C. 918 Prince St. Alexandria, VA 22314				
EXAMINER DANIEL JR, WILLIE J				
ART UNIT 2617		PAPER NUMBER		
MAIL DATE 07/01/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/914,953

Applicant(s)

JUUTI ET AL.

Examiner

WILLIE J. DANIEL JR

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No./Mail Date: _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to applicant's amendment filed on 10 April 2009. **Claims 22-38** are now pending in the present application and **claims 1-21** are canceled. This office action is made **Final**.

Claim Objections

2. Claim 38 is objected to because of the following informalities:
 - a. Claim 38 recites the limitation "...respective **LAC**..." in line(s) 6 of the claim. The Examiner interprets as --respective **location area code (LAC)**-- (see claim 38, line(s) 9) and suggests replacing said limitation to help clarify the claim language.
 - b. Claim 38 recites the limitation "...**it** location..." in line(s) 6 of the claim. The Examiner requests applicant to clarify the claim language.Appropriate correction is required.
3. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review all claims and clarify the issues as listed above as well as any other issue(s) that are not listed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 38 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

- a. **Claim 38** recites the limitation "...other than the location areas and the exclusive location areas..." in line(s) 40-41 of the claim.

Regarding **claim 38**, the claim(s) include(s) a limitation that is not supported by the instant application as originally filed. The applicant failed to provide support (i.e., page(s), line(s), and drawing(s)) for the newly amended claim limitation. The applicant is advised to review the subject matter of the specification (see pg. 7, [0033]), which basically describes cells belonging to location service area are either exclusive or not. Applicant is advised to clearly and concisely provide claim language that is consistent and correlates to the specification and mindful not to improperly utilized language that is clearly not supported. The Examiner respectfully requests the applicant to provide page(s), line(s), and figure(s) of the instant application that supports the limitation of the claim(s) and/or any supportive comment(s) to help clarify and resolve this issue(s).

5. Due to the 112 rejection of the current claim language, the Examiner has given a reasonable interpretation of said language and the claims are rejected as broadest and best interpreted. In addition, applicant is welcomed to point out where in the specification the Examiner can find support for this language if Applicant believes otherwise.
6. This list of examples is not intended to be exhaustive. The Examiner respectfully requests the applicant to review all claims and clarify the issues as listed above as well as any other issue(s) that are not listed.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-27 and 29-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Salmela et al.** (hereinafter Salmela) (**WO 98/30056**) in view of **Nordstrand (US 6,334,052 B1)** and **Seppanen et al.** (hereinafter Seppanen) (**US 5,903,832**).

Regarding **claims 22, 29-30, 34, and 37**, Salmela discloses a method for deciding whether a mobile station used by a subscriber is allowed to camp in a cell of a mobile communications system comprising cells (see abstract; pg. 1, lines 4-6; pg. 8, lines 17-25; pg. pg. 4, lines 9-12; pg. 14, lines 22-25; Figs. 1), where the system provides restricting connection of a mobile station (MS) to a cell, the method comprising:

defining location areas each associated with a respective Location Area Code (LAC) and comprising a group of cells so that each cell of the mobile communications system belongs to a location area, wherein within each location area, the mobile station may move without updating its location (see abstract; pg. 1, lines 4-6; pg. 8, lines 17-25; pg. pg. 4, lines 9-12; pg. 14, lines 22-25; Figs. 1), where the system provides restricting connection of a mobile station (MS) to a cell,

defining localized service areas each associated with a respective Localized Service Area identification (LSA-ID), wherein the localized service areas may overlap and be discontinuous so that a cell may belong to one or more localized service areas or to none of the localized service areas, and a localized service area may comprise cells belonging to different location areas so that when the mobile station is moving within the localized service area a location update may be triggered because the location area changes (see abstract; pg. 1, lines 4-6; pg. 8, lines 17-25; pg. pg. 4, lines 9-12; pg. 14, lines 22-25; Figs. 1), where the system provides restricting connection of a mobile station (MS) to a cell,

defining some of the location areas (LAs) to be localized service areas (LSAs - LSA1-3) which reads on the claimed "exclusive location areas" each exclusive location being identified with a respective LAC (e.g., LA1), an exclusive location area (LSA1) comprising special cells (C1-C3, C5, C11) which reads on the claimed "exclusive cells" for which a special service which reads on the claimed "exclusive service" condition is defined (see pg. 4, lines 1-12; pg. 5, lines 14-18; pg. 7, lines 26-28; pg. 8, lines 6-12; Figs. 1-2), where the system can determine which cells are special cells (see pg. 5, lines 19-27; pg. 12 lines 20-27),

so that a location area is either an exclusive location area (e.g., LSA1 or special cell C1) or a non-exclusive location area (see pg. 5, lines 19-27; pg. 12 lines 20-27), where the system can determine which cells are special cells as evidenced by the fact that one of ordinary skill in the art would clearly recognize;

broadcasting an LAC of a cell and, if the cell belongs to at least one localized service area, broadcasting an LSA-ID of each localized service area to which the cell belongs (see pg. 2, lines 6-11; pg. 4, lines 26-28; pg. 13, line 31 - pg. 14, line 5);

receiving, via the cell, a request for location update which initiates a location update procedure for updating the subscriber's location to a new location area and includes a LAC for the new location area to which the subscriber would like to update (i.e., location area identifier/index - LAI) (see pg. 2, lines 9-17; pg. 2, line 35 - pg. 3, line 2; pg. 4, lines 23-24; pg. 4, line 31 - pg. 5, line 9; pg. 8, lines 13-16; pg. 9, lines 19-23; pg. 10, lines 25-29; pg. 11, lines 19-23; pg. 14, lines 21-25; Figs. 2-5 "message 21");

checking during the location update procedure whether the new location area (i.e., location area identifier/index - LAI) indicated by the LAC (e.g., location area identifier - LAI) is defined as an exclusive location area (LSAs - LSA1-3) (see pg. 5, lines 6-9; pg. 6, lines 12-19; pg. 8, lines 17-25; pg. 11, lines 23-26; pg. 12, lines 10-19; pg. 14, lines 26-31; pg. 15, lines 14-24); and

if the new location area (i.e., location area identifier - LAI) is an exclusive location area (LSAs - LSA1-3) (see pg. 12, line 28 - pg. 13, line 5; pg. 14, lines 28-31; pg. 15, lines 14-24),

using the exclusive service condition of the cell (C1-C3, C5, C11) in determining whether or not the subscriber is allowed to camp (i.e., connect) in the cell (see pg. 14, lines 14-18; pg. 14, line 28 - pg. 15, line 3; pg. 15, lines 14-24; pg. 8, lines 6-12; Fig. 1-2),

allowing the mobile station (MS) to camp (i.e., connect) in the cell by accepting the location update if the subscriber is allowed to camp (i.e., connect) in the cell (see pg. 13, lines 1-5; pg. 14, lines 14-18; pg. 14, line 35 - pg. 15, line 1; pg. 15, lines 14-24), and

preventing (i.e., restricting) the mobile station (MS) from camping (i.e., connecting) in the cell by rejecting the location update if the subscriber is not allowed to camp (i.e., connect) in the cell (see pg. 13, lines 1-5; pg. 5, lines 14-18, 21-35; pg. 15, lines 1-34).

Salmela inexplicitly discloses having the feature(s) if the new location area is not an exclusive location area: checking whether or not the subscriber has localized service information which comprises at least one localized service area identification (LSA-ID) with information about the subscriber's access rights outside the LSA-IDs; if the subscriber has the localized service information, using it to determine whether or not the subscriber is allowed to camp in the cell; and if the subscriber has no localized service information, allowing the subscriber to camp in the cell; if a suitable cell is not found, entering a limited service state.

However, the examiner maintains that the feature(s) if the new location area is not an exclusive location area: checking whether or not the subscriber has localized service information which comprises at least one localized service area identification (LSA-ID) with information about the subscriber's access rights outside the LSA-IDs; if the subscriber has the localized service information, using it to determine whether or not the subscriber is allowed

to camp in the cell; and if the subscriber has no localized service information, allowing the subscriber to camp in the cell was well known in the art, as taught by Nordstrand.

In the same field of endeavor, Nordstrand discloses the feature(s) if the new location area is not an exclusive location area: checking whether or not the subscriber has localized service information which comprises at least one localized service area identification (LSA-ID) with information about the subscriber's access rights outside the LSA-IDs (see abstract; col. 4, lines 6-9, 32-50; col. 6, lines 1-20, 28-45);

if the subscriber has the localized service information, using it to determine whether or not the subscriber is allowed to camp in the cell (see abstract; col. 4, lines 39-50; col. 5, lines 1-20, 28-59; col. 7, lines 14-29, 43-49; col. 8, lines 9-17); and

if the subscriber has no localized service information, allowing the subscriber to camp in the cell (see col. 10, line 41 - col. 11, line 6; Fig. 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salmela and Nordstrand to have the feature(s) if the new location area is not an exclusive location area: checking whether or not the subscriber has localized service information which comprises at least one localized service area identification (LSA-ID) with information about the subscriber's access rights outside the LSA-IDs; if the subscriber has the localized service information, using it to determine whether or not the subscriber is allowed to camp in the cell; and if the subscriber has no localized service information, allowing the subscriber to camp in the cell, in order , as taught by Nordstrand (see col. 7, lines 22-29; col. 8, lines 10-17). The combination of Salmela and Nordstrand does not specifically disclose having the feature if a suitable cell is

not found, entering a limited service state. However, the examiner maintains that the feature if a suitable cell is not found, entering a limited service state was well known in the art, as taught by Seppanen.

In the same field of endeavor, Seppanen discloses the feature if a suitable cell is not found, entering a limited service state (see col. 10, lines 5-12), where a mobile terminal having enhanced system selection capability enters a limited service state if a suitable system cell for communication is not found.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salmela, Nordstrand, and Seppanen to have the feature if a suitable cell is not found, entering a limited service state, in order to save battery power and/or processing resources, as taught by Seppanen.

Regarding **claim 23**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed, as applied above (see claim 22), in addition Salmela further discloses a method according to claim 22, the method further comprising maintaining information about location areas (e.g., LAI) that are defined as exclusive location areas (LSAs - LSA1-3) in a network element (e.g., database) configured to reject or accept location updates (see pg. 4, lines 18-22; pg. 5, lines 19-27; pg. 14, line 26 - pg. 15, line 4; pg. 15, line 34 - pg. 16, line 1; pg. 8, lines 17-25; pg. 15, lines 14-24).

Regarding **claim 24**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed, as applied above (see claim 23), in addition Salmela further discloses a method according to claim 23, the method further comprising:

maintaining cell (C1-C3, C5, C11) information indicating whether a cell (C1-C3, C5, C11) is an exclusive cell (C1-C3, C5, C11) (see pg. 4, lines 18-22; pg. 5, lines 19-27; pg. 8, lines 6-30; pg. 11, lines 20-35; pg. 12, line 20 - pg. 13, line 5; pg. 13, lines 18-26; pg. 14, lines 28-35; pg.15, lines 26-33; pg. 8, lines 6-12; Figs. 1-2), where the mobile station operates in location service areas (LSAs - LSA1-3) ; and

using said cell information to define whether the new location area is an exclusive location area (LSAs - LSA1-3) (see pg. 8, lines 6-30; pg. 11, lines 20-35; pg. 12, line 20 - pg. 13, line 5; pg.13, lines 18-26; pg. 14, lines 28-35; pg. 15, lines 26-33; Figs. 1-2).

Regarding **claim 25**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed, as applied above (see claim 22), in addition Salmela further discloses a method according to claim 22, the method further comprising:

receiving an indication (e.g., message 32) indicating whether the cell is an exclusive (i.e., special) cell during location update (see pg. 8, lines 20-30; pg. 9, lines 26-30; pg. 11, lines 11-18, 23-35; Figs. 3A-B and 4B), where message 32 transmitted from the intelligent network to the visitor location register; and

deciding on the basis of the indication whether the location area of the cell is an exclusive location area (see pg. 5, lines 19-27; pg. pg. 12, line 20 - pg. 13, line 5; pg. 14, line 22 - pg. 15, line 33; Figs. 1 and 5).

Regarding **claim 26**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed, as applied above (see claim 22), in addition Salmela further discloses a method according to claim 22, wherein

the exclusive cells (C1-C3, C5, C11) are exclusive access cells belonging to one or more localized service areas (see pg. 4, lines 1-15; pg. 5, lines 18-27; pg. 8, lines 6-9; pg. 14, line 14 - pg. 15, line 33), where only certain subscribers can connect to those cells; and

if the new location area is an exclusive are, whether or not the subscriber is allowed to camp (e.g., connect) in the cell is determined by checking whether or not the subscriber has the localized service area (LSAs - LSA1-3) information of the cell and if the to the subscriber's local service area (LSAs - LSA1-3) information (see pg. 4, line 1-22; pg. 5, lines 14-27; pg. 14, line 21 - pg. 15, line 33) and

if the subscriber has the localized service area information comparing the LSA-IDs of the subscriber to camp (i.e., connect) of the cell and allowing the subscriber to camp in the cell only if there is a match, and if the subscriber does not have the localized information the subscriber is not allowed to camp in the cell (see pg. 4, lines 1-22; pg. 5, lines 14-27; pg. 7, lines 26-28; pg. 14, line 21 - pg. 15, line 33).

Regarding **claim 27**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed, as applied above (see claim 22), in addition Salmela further discloses a method according to claim 22, further comprising:

defining location areas (LAI) so that when an exclusive access cell (e.g., C1) belongs to a location area (LAI), the other cells (e.g., C2 and C3) in that location area (LAI) are also exclusive cells (see pg. 4, lines 1-22; pg. 5, lines 14-27; pg. 8, lines 25-30; pg. 12, line 20 - pg. 13, line 5; pg. 14, line 26 - pg. 15, line 3; pg. 8, lines 17-25; pg. 15, lines 14-24; Fig. 1);

maintaining information about location areas (LAI) comprising exclusive cells (C1-C3, C5, C11) (see pg. 4, lines 18-22; pg. 5, lines 19-27; pg. 8, lines 14-30; pg. 11, lines 20-35;

pg. 12, line 20 - pg. 13, line 5; pg. 13, lines 18-26; pg. 14, lines 28-35; pg. 15, lines 26-33; Fig. 1); and

using that information to decide whether the location area of the cell is an exclusive location area (LSAs - LSA1-3) (see pg. 5, lines 19-27; pg. 8, lines 14-30; pg. 11, lines 20-35; pg. 12, line 20 - pg. 13, line 5; pg. 13, lines 18-26; pg. 14, line 22 - pg. 15, line 33).

Regarding **claim 31**, Salmela discloses a system according to claim 30, wherein the network is configured to further broadcast an indication (EA) (e.g., message) that the cell is an exclusive cell when the cell belongs to an exclusive location area (LSAs - LSA1-3) (see pg. 1, lines 14-18; pg. 2, lines 6-11; pg. 4, lines 26-28; pg. 6, lines 7-20; pg. 12, line 29 - pg. 13, line 5; pg. 13, line 31 - pg. 14, line 5; pg. 8, lines 17-25; pg. 15, lines 14-24). Salmela does not specifically disclose having the features the mobile station is configured, in response to receiving a new LAC and said indication EA, to determine whether the mobile station is allowed to camp in the cell, and if it is allowed, to send a location update request to the network, or if it is not allowed, to try to find a suitable cell in which to camp and if a suitable cell is not found, to enter a limited service state. However, the examiner maintains that the features the mobile station is arranged, in response to receiving a new location area identity LAC and said indication EA, to determine whether the mobile station is allowed to camp in the cell, and if it is allowed, to send a location update request to the network, or if it is not allowed, to try to find a suitable cell in which to camp was well known in the art, as taught by Nordstrand.

In the same field of endeavor, Nordstrand discloses the features

the mobile station is configured, in response to receiving a new LAC (e.g., cell-related information) and said indication EA (e.g., message), to determine whether the mobile station is allowed to camp in the cell (see abstract; col. 4, lines 39-50; col. 5, lines 1-20, 28-59; col. 7, lines 14-29, 43-49; col. 8, lines 9-17), where the location update request is not explicitly mentioned but is inherent from the conventional techniques (see col. 11, lines 4-6), and

if it is allowed, to send a location update request to the network (see abstract; col. 4, lines 6-12, 32-50; col. 5, lines 1-20, 28-59; col. 6, lines 1-20, 28-45; Figs. 4-5), or

if it is not allowed, to try to find a suitable cell in which to camp (see col. 10, line 41 - col. 11, line 6; Fig. 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salmela and Nordstrand to have the features the mobile station is configured, in response to receiving a new LAC and said indication EA, to determine whether the mobile station is allowed to camp in the cell, and if it is allowed, to send a location update request to the network, or if it is not allowed, to try to find a suitable cell in which to camp, in order to save radio and network resources, as taught by Nordstrand (see col. 7, lines 22-29; col. 8, lines 10-17). The combination of Salmela and Nordstrand does not specifically disclose having the feature if a suitable cell is not found, to enter a limited service state. However, the examiner maintains that the feature if a suitable cell is not found, to enter a limited service state was well known in the art, as taught by Seppanen.

In the same field of endeavor, Seppanen discloses the feature if a suitable cell is not found, to enter a limited service state (see col. 10, lines 5-12), where a mobile terminal

having enhanced system selection capability enters a limited service state if a suitable system cell for communication is not found.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salmela, Nordstrand, and Seppanen to have the feature if a suitable cell is not found, to enter a limited service state, in order to save battery power and/or processing resources, as taught by Seppanen.

Regarding **claim 32**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed, as applied above (see claim 22), in addition Salmela further discloses a network according to claim 12, wherein the network (i.e., system) comprises local service areas (LSAs - LSA1-3) each indicated by a Local Service Area identification (LSA-ID) (e.g., LSAs - LSA1-3) defining local services for subscribers via cells or a cell defined as belonging to a local service area LSA (LSAs - LSA1-3) (see pg. 4, lines 1-12; pg. 7, lines 26-28; Fig. 1), and

the network is further configured to receive information (e.g., LAI) on the local service area LSA (LSAs - LSA1-3) of the cell and to determine whether the subscriber is allowed to camp (i.e., connect) in the cell by checking whether or not the subscriber has the local service area (LSA-ID) (e.g., LSAs - LSA1-3) information of the cell to the subscriber's local service area (LSAs - LSA1-3) information (LSA-ID) and if the subscriber has the localized area information the network is further configured to compare the LSA-IDs of the cell with the subscriber's LSA_ID and to allow the subscriber to camp in the cell only if there is a match, and if the subscriber does not have the localized service information, the network is further

configured to determine that the subscriber is not allowed to camp in the cell (see pg. 4, lines 1-22; pg. 5, lines 14-27; pg. 14, line 21 - pg. 15, line 33).

Regarding **claim 33**, the claim as applied to claim 30 are rejected for the same reasons as set forth above in **claim 22**.

Regarding **claim 35**, the claim as applied to claim 30 are rejected for the same reasons as set forth above in **claim 22**.

Regarding **claim 36**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed, as applied above (see claim 34), in addition Salmela further discloses a network element according to claim 34, wherein the information about location areas defined as exclusive location areas (LSAs - LSA1-3) comprises location areas (LSAs - LSA1-3) having at least one cell which is in the area of the network element (e.g., database) (see pg. 5, lines 19-27; pg. 15, lines 14-25), where location areas are in the vicinity of the HLR or VLR.

Regarding **claim 38**, Salmela discloses a method for deciding whether a mobile station used by a subscriber is allowed to camp in a cell of a mobile communications system comprising cells (see abstract; pg. 1, lines 4-6; pg. 8, lines 17-25; pg. 4, lines 9-12; pg. 14, lines 22-25; Figs. 1), where the system provides restricting connection of a mobile station (MS) to a cell, the method comprising:

defining a group of cells so that each cell of the mobile communications system belongs to one location area of a plurality of location areas each location area being identified with a respective LAC, wherein within each location area, the mobile station may move without updating its location (see abstract; pg. 1, lines 4-6; pg. 8, lines 17-25; pg. pg. 4, lines 9-12;

pg. 14, lines 22-25; Figs. 1), where the system provides restricting connection of a mobile station (MS) to a cell,

defining a portion of the plurality of location areas to be exclusive location areas, each of said portion being identified with a respective Location Area Code (LAC), each exclusive location area comprising cells for which an exclusive service condition is defined, wherein, within each exclusive location area, the mobile station may move without updating its location (see pg. 4, lines 1-12; pg. 5, lines 14-18; pg. 7, lines 26-28; pg. 8, lines 6-12; Figs. 1-2), where the system can determine which cells are special cells (see pg. 5, lines 19-27; pg. 12 lines 20-27);

broadcasting an LAC of a particular cell and, if the particular cell provides special services only to some subscribers, broadcasting an localized service area identification (LSA-ID) of each service cell provides (see abstract; pg. 2, lines 6-11; pg. 4, lines 26-28; pg. 13, line 31 - pg. 14, line 5; pg. 1, lines 4-6; pg. 8, lines 17-25; pg. pg. 4, lines 9-12; pg. 14, lines 22-25; Figs. 1), where the system provides restricting connection of a mobile station (MS) to a cell;

receiving, via the particular cell, a request for location update which initiates a location update procedure for updating the subscriber's location to a new location area and includes a LAC for the new location area to which the subscriber would like to update (i.e., location area identifier/index - LAI) (see pg. 2, lines 9-17; pg. 2, line 35 - pg. 3, line 2; pg. 4, lines 23-24; pg. 4, line 31 - pg. 5, line 9; pg. 8, lines 13-16; pg. 9, lines 19-23; pg. 10, lines 25-29; pg. 11, lines 19-23; pg. 14, lines 21-25; Figs. 2-5 "message 21");

checking during the location update procedure whether the new location area (i.e., location area identifier/index - LAI) indicated by the LAC (e.g., location area identifier - LAI) is defined as an exclusive location area (LSAs - LSA1-3) (see pg. 5, lines 6-9; pg. 6, lines 12-19; pg. 8, lines 17-25; pg. 11, lines 23-26; pg. 12, lines 10-19; pg. 14, lines 26-31; pg. 15, lines 14-24); and

if the new location area (i.e., location area identifier - LAI) is an exclusive location area (LSAs - LSA1-3) (see pg. 12, line 28 - pg. 13, line 5; pg. 14, lines 28-31; pg. 15, lines 14-24),

using the exclusive service condition of the cell (C1-C3, C5, C11) in determining whether or not the subscriber is allowed to camp (i.e., connect) in the cell (see pg. 14, lines 14-18; pg. 14, line 28 - pg. 15, line 3; pg. 15, lines 14-24; pg. 8, lines 6-12; Fig. 1-2),

allowing the mobile station (MS) to camp (i.e., connect) in the cell by accepting the location update if the subscriber is allowed to camp (i.e., connect) in the cell (see pg. 13, lines 1-5; pg. 14, lines 14-18; pg. 14, line 35 - pg. 15, line 1; pg. 15, lines 14-24), and

preventing (i.e., restricting) the mobile station (MS) from camping (i.e., connecting) in the cell by rejecting the location update if the subscriber is not allowed to camp (i.e., connect) in the cell (see pg. 13, lines 1-5; pg. 5, lines 14-18, 21-35; pg. 15, lines 1-34);

wherein cells providing the same special service are grouped to form a localized service area, which is other than the location areas and the exclusive location areas (see abstract; pg. 1, lines 4-6; pg. 8, lines 17-25; pg. pg. 4, lines 9-12; pg. 14, lines 22-25; Figs. 1), where the system provides restricting connection of a mobile station (MS) to a cell. Salmela inexplicitly discloses having the feature(s) if the new location area is not an exclusive

location area: checking whether or not the subscriber has subscribed a specific special service with restricted access right; and if the subscriber has subscribed the specific special service, using its restricted access right to determine whether or not the subscriber is allowed to camp in the cell; and if the subscriber has not subscribed the specific special service, allowing the subscriber to camp in the cell. However, the examiner maintains that the feature(s) if the new location area is not an exclusive location area: checking whether or not the subscriber has subscribed a specific special service with restricted access right; and if the subscriber has subscribed the specific special service, using its restricted access right to determine whether or not the subscriber is allowed to camp in the cell; and if the subscriber has not subscribed the specific special service, allowing the subscriber to camp in the cell was well known in the art, as taught by Nordstrand.

In the same field of endeavor, Nordstrand discloses the feature(s) if the new location area is not an exclusive location area: checking whether or not the subscriber has subscribed a specific special service with restricted access right (see abstract; col. 4, lines 6-9, 32-50; col. 6, lines 1-20, 28-45);

if the subscriber has subscribed the specific special service, using its restricted access right to determine whether or not the subscriber is allowed to camp in the cell (see abstract; col. 4, lines 39-50; col. 5, lines 1-20, 28-59; col. 7, lines 14-29, 43-49; col. 8, lines 9-17); and

if the subscriber has not subscribed the specific special service, allowing the subscriber to camp in the cell (see col. 10, line 41 - col. 11, line 6; Fig. 4). As further support, Nordstrand at the least further discloses wherein cells providing the same special service are grouped to form a localized service area, which is other than the location areas and the exclusive

location areas (see col. 8, lines 20-30,35-38; col. 9, lines 28-37,51-61; Fig. 1), where microcells are grouped for access by a particular group (e.g., employees) in which the microcells have certain criterion (e.g., C1 or C2) and may be part of different macrocells.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salmela and Nordstrand to have the feature(s) if the new location area is not an exclusive location area: checking whether or not the subscriber has subscribed a specific special service with restricted access right; and if the subscriber has subscribed the specific special service, using its restricted access right to determine whether or not the subscriber is allowed to camp in the cell; and if the subscriber has not subscribed the specific special service, allowing the subscriber to camp in the cell, in order to save radio and network resources, as taught by Nordstrand (see col. 7, lines 22-29; col. 8, lines 10-17).

The combination of Salmela and Nordstrand clearly discloses the feature(s) indicated above as evidenced by the fact that one of ordinary skill in the art would clearly recognize. However, the examiner maintains that the feature(s) a method for deciding whether a mobile station used by a subscriber is allowed to camp in a cell of a mobile communications system was well known in the art, as taught by Seppanen.

As further support in the same field of endeavor, Seppanen discloses the feature(s) a method for deciding whether a mobile station used by a subscriber is allowed to camp in a cell of a mobile communications system (see col. 10, lines 5-12), where a mobile terminal having enhanced system selection capability enters a limited service state if a suitable system cell for communication is not found.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salmela and Nordstrand as further supported by Seppanen to have the feature(s) a method for deciding whether a mobile station used by a subscriber is allowed to camp in a cell of a mobile communications system, in order to save battery power and/or processing resources, as taught by Seppanen.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Salmela et al.** (hereinafter Salmela) (**WO 98/30056**) in view of **Nordstrand (US 6,334,052 B1)** and **Seppanen et al.** (hereinafter Seppanen) (**US 5,903,832**) as applied to claim 22 above, and further in view of **Rune (US 6,212,390 B1)**.

Regarding **claim 28**, the combination of Salmela, Nordstrand, and Seppanen discloses every limitation claimed as applied above. The combination of Salmela, Nordstrand, and Seppanen does not specifically disclose having the feature(s) rejecting the location update with the cause "roaming not allowed in this location area". However, the examiner maintains that the feature(s) rejecting the location update with the cause "roaming not allowed in this location area" was well known in the art, as taught by Rune.

In the same field of endeavor, Rune discloses the feature(s) rejecting the location update with the cause "roaming not allowed in this location area" (see col. 8, line 1-4; Fig. 5 'ref. 580').

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Salmela, Nordstrand, Seppanen, and Rune to have the feature(s) rejecting the location update with the cause "roaming not allowed

in this location area”, for the purpose of allowing a restricted area to be defined in real-time and/or relative to the subscriber’s terminal at the time of attempted access, as taught by Rune (see col. 4, lines 47-50).

Response to Arguments

8. Applicant's arguments with respect to claims 22 and 38 have been considered but are moot in view of the new ground(s) of rejection necessitated by the new claims.

In response to applicant’s arguments, the Examiner respectfully disagrees as the applied reference(s) provide more than adequate support and to further clarify (see the above claims for relevant citations).

9. Regarding applicant’s argument(s) of claims 23-37, the claims are addressed for the same reasons as set forth above and as applied above in each claim rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Meskanen et al. (US 6,434,389 B1) discloses a method for selecting cell in cellular network.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIE J. DANIEL JR whose telephone number is (571)272-7907. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information

Art Unit: 2617

about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/WJD,Jr/

WJD,Jr
29 June 2009

/Charles N. Appiah/
Supervisory Patent Examiner, Art Unit 2617